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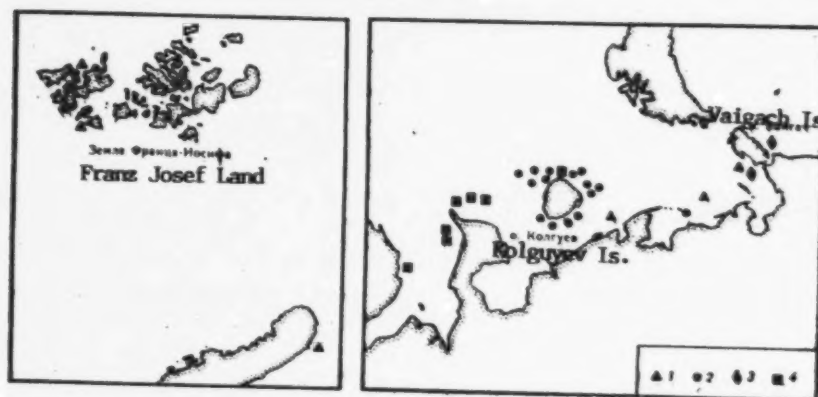
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Protection and restoration of the West Atlantic walrus population

by Yu. K. Timoshenko

Of all the marine animals hunted by man in the North, the Atlantic walrus (*Odobenus rosmarus rosmarus*) in the Barents and Kara seas has suffered the most. As a result of predaceous exploitation, the numbers of this species have dwindled to such an extent that it has been included in the Red Book of the USSR [1978]. At one time, walruses were the main target of the Russian and Norwegian hunting industry which dates back to the 9th—10th centuries. Walruses were hunted even in the White Sea. We have reason to believe that the numbers of these animals were at one time quite high. In 1607, for example, 900 walruses were killed on Medvezhi (Bear) Is. alone [Chapsky, 1939]. At the end of the 18th century, hundreds of vessels embarked on the walrus hunt to Spitsbergen and Novaya Zemlya. However, by the end of the 19th century, the walrus stocks had decreased drastically as a result of predaceous exploitation of the species by man. By 1934, only the pitiful remains of a once flourishing population had survived (not more than 1200—1300 animals were known to exist in the Barents and Kara seas) [Chapsky, 1939]. Walrus hunting from vessels has been banned in the USSR since 1934; it was banned in the Barents and Kara seas in 1949, and has been banned everywhere since 1956. Norway has also introduced a ban on walrus hunting, and a number of restrictions were established in the Canadian Arctic.

Over the past two decades, Soviet scientists have not been conducting any special research on the Atlantic walrus. Therefore, the status of the population and the effectiveness of the ban can be judged to some extent only on the basis of indirect data. The observations carried on from aircraft and commercial and research vessels during the 1960—1970s have given us some idea of the present range of this species and its numbers in certain areas (see diagram).



Places where walruses are encountered in the White and Barents seas
1 - in autumn, 2 - in winter, 3 - in summer, 4 - in spring

In March—April, walruses go into Voronka of the White Sea. As a rule, these are pairs or individual animals. During the rest of the year, walruses are not encountered here. In the Barents Sea, walruses have been observed in spring, winter and autumn. During October—November 1966—1967, a total of 55 walruses, including adults, juveniles and pups, were noted in the southeastern part of the Barents Sea (Vaigach Is., Cape Russkiy Zavorot, southern tip of Kolguev Is.). In June—July 1970, approximately 100 animals were observed in the Yugorskiy Shar strait; during the same period in 1971, a similar number of walruses was seen off Vaigach Is. in Varnek Bay. During the winter, walruses have been repeatedly observed off Kolguev Is. We counted 75 of them in this area in January—February 1971. A group of 100—120 walruses was observed in January 1977 in the northern part of Pechora Bay off the Gulyayevskiye Koshki Is. [Lukin, 1978]. Walruses were noted in this area in the years that

followed as well. Data from the beginning of the 1960s are available for the Kara Sea. According to an ice survey, there were approximately 100 walruses off the eastern coast of the Taimyr Peninsula in August—October 1960—1961. Small groups of 4—30 walruses were spotted during the summer—autumn of the same year near Victoria, Vize and Schmidt islands, and in the vicinity of Franz Josef Land, frequently beyond 81° N lat. In July—August 1973, approximately 300 walruses were observed near Spitsbergen [Benjaminsen et al., 1973]. Norwegian researchers are inclined to believe that the numbers of the walrus population have recently increased in this area [Eritsland, 1973].

Therefore, analysis of the data on the distribution of walruses indicates that the present range of this subspecies is still rather extensive. The fact that encounters with walruses have recently become quite common in the Voronka of the White Sea is of particular interest; this is obviously an indication that the animals are trying to occupy their former area of distribution.

The more frequent encounters with walruses in the Barents Sea and their appearance in the White Sea may be an indication that their numbers have increased as a result of the ban on walrus hunting. On the other hand, our attention is drawn to the status of the coastal hauling-out grounds of the walrus. The survey conducted in 1967 and 1978—1979 showed that many of the hauling-out grounds are no longer visited by walruses. For example, the hauling-out grounds on the Oranskiye islands. (northern tip of Novaya Zemlya), where walrus rookeries were noted back in 1952 [Popov, 1959], are no longer in existence. At the present time, there is only one rookery on the northeastern coast of Novaya Zemlya, where the walrus herd numbers 200—370 head [Potelov, 1973; Beloborodov, Timoshenko, 1974; Timoshenko, 1977]. At the southern tip of Novaya Zemlya, there are actually no rookeries on Britvin and Pukhovaya islands. Only single walruses or small groups of them are encountered on these islands. No walruses have been noted on the shores of the Tycheniye and Anna inlets, or on Cape Konstantin, though walruses hauled out here in the past. In September 1978—1979, a survey of coastal walrus rookeries was conducted on Franz Josef Land. It was found that about 300 animals

hauled out on Northbrook Is. [Nazarenko, 1980] and about 1000 on George Land (Zemlya Georga) [Nazarenko, Timoshenko, 1982].

Thus, the total number of walrus counted at the coastal hauling-out grounds of Novaya Zemlya and Franz Josef Land was about 1500—1700 head, and with the Spitsbergen data of the Norwegian researchers 1800—2000 individuals¹. The West Atlantic walrus population was apparently undermined to such an extent that, despite the nearly 30-year ban on walrus hunting, it is not in a condition to ensure a reliable growth of its numbers. It is difficult to say whether it will ever reach its previous level. This is aggravated by other factors, particularly the comparatively low reproductive capacity of the walrus [Krylov, 1968].

The increase in walrus numbers is apparently also held back by the polar bear, the density of which amounts to 6 animals per kilometre of coastline near some coastal rookeries [Potelov, 1973].

The Arctic has today become the scene of extensive economic activity on the part of man; this cannot but affect the habitat of this species. Suffice it to say that navigation in the northern seas is today year-round. Large ice-breakers, including atomic ones, escort caravans of large-tonnage transport vessels at practically any time of the year, even in winter. Intensive navigation during the ice period is now carried on in the southeastern part of the Barents Sea where walrus overwinter. This disturbs the animals, and upsets their natural biological cycles, which leads to all kinds of unfavorable results. As a result of the expansion of man's economic activity in the Arctic (working of oil and gas deposits on the shelf, development of the coast, etc.), the adverse effect of this will eventually increase not only in the case of the walrus, but for all the pinnipeds as a whole.

It is necessary to take urgent measures to preserve and restore the walrus population in the western sector of the Soviet Arctic; we must first conduct a detailed study of the places where walrus once formed, or today form coastal rookeries. These are primarily the islands adjacent to

¹Perhaps these data do not fully reflect the numbers of the walrus populations inhabiting these areas, since not all the animals may have been present at the hauling-out grounds. Nevertheless, they can be of some importance to the analysis of the present state of the West Atlantic walrus stocks, as most of the herd was probably taken into account.

Novaya Zemlya, namely the Hemskerk, Oranskiye, Britvin, Pukhovaya and Oleniy islands, Franz Josef Land, Sharapovy Koshki off the western coast of the Yamal Peninsula, etc. The areas of functioning rookeries, i.e. Hemskerk, Northbrook and George Land (Franz Josef Land), should be declared sanctuaries. All economic activity should be prohibited in these areas, and access to them by all vessels stopped. It is also necessary to regulate the protection of walruses at their overwintering grounds, particularly in the vicinity of Kolguyev Is. and the northern part of the Pechora Sea. The numbers of the walrus must be recorded in order to have a clear picture of its population and to conduct extensive detailed investigations of its ecology.

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